

SELF SIMILAR ASYMPTOTICS OF THE DRIFT ION ACOUSTIC WAVES

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A 3D model for the coupled drift and ion acoustic waves is considered. It is shown that self-similar solutions can exist due to the symmetry extension in asymptotic regimes. The form of these solutions is determined in the presence of the magnetic shear as well as in the shearless case. Some of the most symmetric exact solutions are obtained explicitly. In particular, solutions describing asymptotics of zonal flow interaction with monochromatic waves are presented and corresponding frequency shifts are determined.